

## METHOD FOR ENHANCING MOBILITY IN A WIRELESS MESH NETWORK

### ABSTRACT OF THE DISCLOSURE

In a wireless communication system having sometimes mobile subscriber units and a plurality of fixed network devices located at cell sites, a multimode acquisition protocol is provided at each subscriber unit which first senses whether the subscriber unit is static or mobile from the nature and quality of the communication links with nearby network devices and then enables an acquisition protocol suited to either static mode or mobile mode. In a specific embodiment, the protocol initiates procedures to change acquisition mode from static to mobile upon failure of the subscriber unit to sense three consecutive scheduled polling packets sent by a linked network device or upon loss of communication with any locally-known network device or upon failure to transmit 25 consecutive data packets. In such case, the procedure is initiated to determine whether it is appropriate to switch to a mobile mode for purposes of acquisition.

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